

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

HYDRO-PHOTON, INC.,
a Maine Corporation

Plaintiff,

v.

MERIDIAN DESIGN, INC., a California
Corporation

Defendant.

Civil Action No. 05-11240 GAO

PLAINTIFF'S MOTION FOR LEAVE TO FILE REPLY BRIEF

Plaintiff, Hydro-Photon, Inc. ("HPI"), respectfully requests leave to file Plaintiff's Reply to Defendant's Opposition To Plaintiff's Cross-Motion For Partial Summary Judgment Of Infringement, attached to this Motion.

As grounds for this Motion, HPI states that Defendant, Meridian Design, Inc.'s Response to Plaintiff's Memorandum In Opposition To Defendant Meridian Design, Inc.'s Motion For Summary Judgment Of Non-Infringement, and In Support of Plaintiff's Cross-Motion for Partial summary Judgment of Infringement (Docket No. 28) ("MDI's Response"), in opposing HPI's Cross-Motion, distorts the facts in an attempt to persuade the Court that a liquid level sensor is a required part of claim 7 of HPI's U.S. Patent No. 6,110,424. As demonstrated in the attached Reply, it is not.

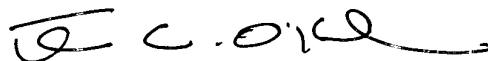
Defendant Meridian Design, Inc.'s ("MDI's") opposition to HPI's Cross-Motion also misstates the law applicable to MDI's patent application, and confuses the record regarding the alleged existence of disputes which preclude summary judgment. The attached Reply clarifies the record and demonstrates that none of MDI's alleged disputes is genuine, or such as would preclude the Court's grant of HPI's Cross-Motion.

Certification Pursuant to Local Rule 7.1

We certify that Plaintiff's counsel conferred with Defendant's counsel by e-mail on December 22, 2005 regarding the relief requested in this Motion, and that no agreement was reached.

Hydro-Photon, Inc., Inc.
By its attorneys,

Dated: 12/23/05



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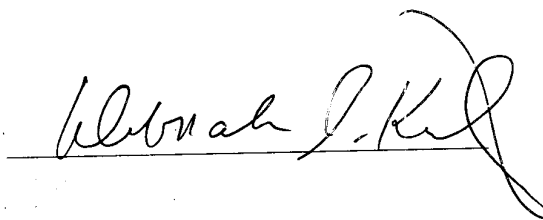
COUNSEL FOR PLAINTIFF, HYDRO-PHOTON,
INC.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 23rd day of December, 2005, a copy of the foregoing document is being served by overnight mail upon the following counsel for the defendant:

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A handwritten signature in black ink, appearing to read "Deborah J. K...", is written over a horizontal line.

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**PLAINTIFF'S REPLY TO DEFENDANT'S OPPOSITION TO PLAINTIFF'S CROSS-
MOTION FOR PARTIAL SUMMARY JUDGMENT OF INFRINGEMENT**

Plaintiff, Hydro-Photon, Inc. ("HPI"), submits this memorandum in reply to Defendant's Response to Plaintiff's "Memorandum In Opposition To Defendant Meridian Design, Inc.'s Motion For Summary Judgment of Non-infringement, and In Support of Plaintiff's Cross-Motion For Partial Summary Judgment Of Infringement" (Docket No. 28) ("MDI's Response").

I. INTRODUCTION

In opposing HPI's cross-motion, Defendant, Meridian Design, Inc. ("MDI"), continues to argue that the "control means" limitation of claim 7 of U.S. Patent 6,110,424 (the "'424 patent") requires a liquid level sensor. As demonstrated below and in HPI's opposition to MDI's motion (Docket No. 21), MDI's arguments are faulty and without merit. A liquid level sensor is not a required part of the "control means".

MDI also argues in its opposition that HPI has failed to establish that MDI's accused AquaStar and AquaStar Plus products literally infringe claim 7 of the '424 patent. As shown below, these arguments confuse questions of law for resolution by the Court with questions of fact. They also ignore the fact that the physical samples of MDI's accused products in the possession of the Court, the MDI-prepared literature introduced regarding them, and the

Declaration of Miles Maiden In Support of Hydro-Photon, Inc.'s Motion For Partial Summary Judgment of Infringement ("Maiden Dec.") demonstrate without serious question that the accused products literally satisfy each and every limitation of claim 7. HPI's cross-motion for partial summary judgment of infringement of claim 7 should be granted.

II. REPLY ARGUMENT

A. The Liquid Level Sensor Does Not Turn the Light Source On and Off

In its Response, MDI, relying on a single sentence in the specification of the '424 patent¹, erroneously argues that the liquid level sensor 20 "is a necessary part of the circuit for turning on the light source." MDI's Response, p. 3.² Other portions of the specification, however, make it clear that the function of the liquid level sensor 20 is not to turn the lamp 12 on or off, but to prevent the lamp 12 from turning on until the lamp is immersed in water. See, e.g., '424 patent, col. 2, ll. 5-11; ll. 44-47; ll. 57-61. The only structures in the '424 patent that actually turn the light source on and off are the on-off switch 28 and switches inside the case that connect and disconnect the system's power source (e.g., the ballast circuitry 13 and battery 14) and lamp 12. '424 patent col. 2, ll. 44-47; col. 3, ll. 22-27. Indeed, that is exactly what switches commonly do - turn light sources on and off.

It is true that, in the preferred embodiment disclosed in the '424 patent, the liquid level sensor 20 controls the switches to prevent them from turning the light source on if the light

¹ MDI bases its argument solely on the fact that the '424 patent specification at one point states "... the lighting of the lamp 12 is ultimately controlled by the liquid level sensor 20, such that the lamp lights only when both the on-off switch 28 is in the on position and the lamp is fully immersed in water." '424 patent, col. 3, ll. 8-12.

² Although MDI continues to deny that its accused products include a liquid level sensor, its opposition to HPI's cross-motion raises more questions than it answers regarding this "fact." MDI admits that the gold pin in its AquaStar product grounds the electrical circuitry in the product when it contacts the water in the bottle. Second Declaration of Dan Matthews ¶ 7. MDI also admits that, at least under certain conditions, this grounding impacts whether the UV lamp in the product turns on. *Id.* This is consistent with what the MDI literature relating to the accused products says about the gold pin. Maiden Dec., ¶ 9-13. A genuine issue of material fact remains regarding whether MDI's products include a liquid level sensor or its equivalent.

source is not immersed in water. The liquid level sensor implements a safety feature which insures that the container and water in the container “act to shield the UV radiation, such that little is emitted from the container” and to “prevent potentially harmful UV radiation from reaching the user and, in particular, the user’s eyes.” ‘424 patent, col. 2, ll. 8-11. The specification states that “[w]hen the [liquid level] sensor determines that it is in water ... the sensor closes the switches...”. ‘424 patent, col. 2, ll. 57-61. This makes it clear that the actual function of turning the light source on and off is performed by the switches. If the liquid level sensor 20 were eliminated from the circuitry of the system, the safety feature would be eliminated, but the switches would still be fully capable of connecting and disconnecting the system’s power source and lamp, i.e., turning the light source on and off. Conversely, if the switches were eliminated from the circuitry of the system, there would be nothing in the circuitry to connect and disconnect the system’s power source and lamp and there would be nothing for the liquid level sensor to control. The specification, read as a whole, supports HPI’s construction.

If there were any merit to MDI’s argument that the liquid level sensor is a necessary part of the corresponding structure of the “control means,” MDI would have argued that the timing circuit 22 in the preferred embodiment of the ‘424 patent is also a necessary part of that structure. As clearly stated in claim 9 of the ‘424 patent, the timing circuit “turns the light source off a predetermined time after the sensor allows the light source to turn on.” Following MDI’s logic, the timing circuit would also be part of the corresponding structure, since it actually controls the switches to turn the light source off after a predetermined time. However, the timing circuit is not part of the corresponding structure, because it, like the liquid level sensor, simply controls the switches which in turn perform the turning off function. The fact that MDI contends that the corresponding structure is a combination of a liquid level sensor and an on/off switch,

not including a timing circuit (see MDI's Response, p. 3), demonstrates the fallacy of its argument with respect to the liquid level sensor.³

B. Claim Differentiation Supports HPI's Construction

At the risk of placing more emphasis on the doctrine of claim differentiation than it truly deserves (HPI simply argued that the doctrine confirms that its construction of the "control means" limitation of claim 7 is the correct one), HPI makes these few additional comments in reply to MDI's continued insistence in its Response that the doctrine does not apply.

The agreed-upon function of the "control means" limitation of claim 7 of the '424 patent is "turning the light source on and off". Claim 8, which depends directly from claim 7, does two significant things: first, it adds a liquid level sensor as an express structural limitation to those of claim 7, and; second, it specifies that the function of the liquid level sensor is to prevent the light source from turning on. This function is separate and distinct from the function of turning the light source on and off. If the liquid level sensor is read into corresponding structure of the "control means" limitation of claim 7, not only is that importing structure that is not necessary to perform the agreed-upon function of the limitation, but it is also importing functional details (i.e., preventing the light source from turning on) that are separate and distinct from the agreed-upon function of the limitation. This is precisely what the Federal Circuit in *Wenger Mfg., Inc. v. Coating Machinery Systems, Inc.*, 239 F.3d 1225 (Fed. Cir. 2001) held cannot be done in the context of construing a means-plus-function limitation (reversing the district court's grant of the defendant's motion for summary judgment of non-infringement and denial of the plaintiff's

³ MDI does not argue that the timing circuit is part of the corresponding structure because it knows that its accused AquaStar and AquaStar Plus products both include a timing circuit that turns the UV lamp off a predetermined time after it is activated. See the AquaStar Plus User's Guide, Exhibit 3 to Maiden Declaration, p. HP0499: "To start the cleaning cycle press and hold the button for about two seconds and release ... The cleaning cycle will run for about 80 seconds. The blue UV-C lamp will turn off and the green LED in the cap will blink when the disinfection cycle has finished." see also the AquaStar User's Guide, Exhibit 4 to the Maiden Dec., p. 2. The Court can confirm this with the samples of the products that it has in its possession.

cross-motion for partial summary judgment of infringement because the district court erroneously interpreted an “air circulation means” limitation in an independent claim to require structure capable of recirculating air where a dependent claim expressly recited the recirculating function).

C. The ‘424 Patent Prosecution History Supports HPI’s Construction

MDI first raised the prosecution history of the ‘424 patent, in support of its proposed construction of the “control means” limitation, by arguing that the PTO Examiner’s statement of reasons for allowance in an early, non-final Office Action confirmed that the liquid level sensor was a critical aspect of HPI’s invention. See Memorandum In Support of Defendant Meridian Design, Inc.’s Motion for Summary Judgment Of Non-Infringement (Docket No. 16) (“MDI’s Memo.”), p. 12. HPI fully and pointedly rebutted MDI’s argument by showing that HPI expressly disagreed with the Examiner’s statement and consistently stated throughout the prosecution that the liquid level sensor was not necessary to distinguish the invention over the prior art. See Plaintiff Hydro-Photon, Inc.’s Memorandum In Opposition To Defendant Meridian Design, Inc.’s Motion For Summary Judgment Of Noninfringement, And In Support of Plaintiff’s Cross Motion For Partial Summary Judgment of Infringement (Docket No. 21) (“HPI’s Memo.”), pp. 9-11. Now that MDI’s prosecution history argument has backfired, MDI can do no better than characterize HPI’s rebuttal as “an elaborate woven tale”. MDI’s Response, p. 6. HPI’s rebuttal is nothing of the sort. It is based on clear and unequivocal references to the actual file history of the ‘424 patent. It should resolve any lingering doubt that the liquid level sensor is not, and was never intended to be, part of claim 7 of the ‘424 patent.

MDI’s argument regarding the allegedly narrowing amendment during the prosecution of the ‘424 patent, and the alleged unavailability to HPI of the doctrine of equivalents in regard to the “control means” limitation (MDI’s Response, pp. 6-7), is another red herring. MDI has not,

does not, and cannot, deny that its accused AquaStar and AquaStar Plus products include structures that perform the function of turning the light source on and off. There is thus no dispute that the accused products perform this identical function. The doctrine of equivalents would come into play only if there were an issue regarding whether the accused products performed a function which is not identical but only equivalent (i.e., substantially similar) to the function recited in the claim. *Kemco Sales, Inc. v. Control Papers Company, Inc.*, 208 F.3d 1352, 1364 (Fed. Cir. 2000). No such issue exists in connection with these motions. MDI's arguments relating to the same are irrelevant.

D. There Are No Genuine Issues of Material Facts That the Accused Products Literally Satisfy the Limitations of Claim 7, As Properly Construed.

MDI challenges the adequacy of HPI's showing in support of its cross-motion by contending that:

- (1) it was improper for HPI to rely on MDI's patent application to confirm that certain limitations of claim 7 are literally satisfied by MDI's accused products (MDI's Response, p. 11);
- (2) it disputes HPI's proposed claim constructions of various terms in claim 7 (*Id.*); and
- (3) it disputes whether its accused products:
 - (a) are "hand-held";
 - (b) include "a case with an outwardly extending ultraviolet light source";
 - (c) have a light source that is "for submerging in the unsterilized water that is held in the container"; and
 - (d) have an on-off switch that is "contained in the case" (*Id.* at pp. 11-13).

None of these challenges has any merit.

1. HPI's Reliance on MDI's Patent Application Was Not Improper.

HPI relied on MDI's patent application (Exhibit G to the Declaration of Kevin Gannon, Esq. In Support of Hydro-Photon, Inc.'s Cross Motion For Partial Summary Judgment (Docket

No. 23) (“Gannon Dec.”) simply to confirm what was already evident from the samples of the accused AquaStar products in the Court’s possession, the MDI literature regarding the products, and the Maiden Dec.⁴ The MDI patent application is nothing more than another technical write-up, prepared by or on behalf of MDI, regarding the details of its accused products. MDI had every opportunity in its opposition to HPI’s cross-motion to deny that the patent application accurately describes the accused products. It did not, save for one detail, i.e., whether the accused products ever implemented the water detect feature described in the patent application. Second Matthews Dec. (Docket No. 29), ¶ 10. By its silence, MDI has at least tacitly confirmed the accuracy of the application as a description of the accused products except for that one detail.

The cases that MDI cites in support of its argument regarding the alleged impropriety of HPI’s reference to the patent application are inapposite. MDI’s Response, pp. 10 and 11. In the *Chemical Engineering Corp.* case cited by MDI, the issues were whether the issuance of a patent on the defendant’s accused devices was relevant to show that those devices did not infringe the plaintiff’s patent, and whether the district court’s “occasional references” to the defendant’s patent as a short-hand description of the defendant’s accused devices was reversible error. *Chemical Engineering Corp. v. Essef Industries, Inc.*, 795 F.2d 1565, 1569, n. 6, 1572 (Fed. Cir. 1986). The Federal Circuit answered both of these issues in the negative. In the *Decode Industries* case cited by MDI, the issue was whether the issuance of a notice of allowance in a patent application filed by the defendant directed to its accused product was relevant to the question of whether the product was not equivalent to, and thus non-infringing, of the plaintiff’s patent. *Decode Industries v. Wood Technology, Inc.*, 100 F. Supp. 979, 982-3 (D. Minn. 2000). The court properly answered this issue in the negative.

⁴ The Claim Chart of Exhibit A to HPI’s Memo (Docket No. 21) shows in detail how this evidence establishes that all of the limitations of claim 7 are literally met by the AquaStar products. Although it could have been, MDI’s patent application was not even referenced in the Claim Chart.

HPI is not using MDI's patent application for the purposes discussed in either of these cases; it is using it simply to confirm what is shown by the other evidence of record. That use is not improper, particularly given MDI's failure to rebut the accuracy of the application's description.

2. Disputes of Claim Construction Cannot Preclude Summary Judgment

Every one knows that claim construction is a matter of law for the Court's resolution. The Court ordered the parties to submit their respective claim construction positions, which they did on November 10, 2005. See Docket Nos. 13 and 14. To the extent that there are disputes regarding the construction of any other terms in claim 7, they can, and should, be resolved by the Court in its ruling on these motions based on the claim construction submissions already made by the parties⁵. Such disputes, being questions of law, cannot preclude summary judgment. *Mantech Environmental Corp. v. Hudson Environmental Services, Inc.*, 152 F.3d 1368, 1371 (Fed. Cir. 1998).

3. MDI's Factual Non-Infringement Arguments Border On the Absurd

As noted, MDI denies that its accused products are "hand held". Regardless of the specific construction adopted by the Court for this term, it is clear from the samples of the AquaStar products in the Court's possession, MDI's literature and the Maiden Dec. that the products are "hand held." See the Claim Chart of Exhibit A to HPI's Memo. (Docket No. 21).

MDI argues that the AquaStar product "need not be operated while being held by the user, as opposed [to] the wand-like device described in the '424 patent." "MDI's Response, p. 12. However, there is nothing in the '424 patent that states that the water purifier 10 of that

⁵ Indeed, this is exactly what HPI's counsel indicated during the Scheduling Conference in this case on November 14, 2005 that he feared MDI would seek to do if it filed its motion for summary judgment -- force the Court to resolve the single issue of claim construction that it wanted resolved, while leaving any other claim construction issues open for later, piece-meal resolution. There is no reason to defer any claim construction issues relating to claim 7 of the '424 patent to another time.

patent must be operated while being held by the user. In fact, the purifier 10 is shown in Fig. 2 of the '424 patent resting against the side of a container 32 of water. The specification of the '424 patent states that:

The user **may** use the lamp end 11 of the system 10 to stir the water 34, to ensure that all of the water comes sufficiently close to the source of the UV radiation. If the container is small, however, **the user need not stir the water.** '424 patent, col. 3, ll. 28-31. (emphasis supplied).

Besides, MDI's own literature makes it clear that the AquaStar products need not be used with the screw-top container that is normally supplied with the product, but may be used with any container. MDI's "Frequently Asked Questions" Web Page, Maiden Dec., Exhibit 1, p. HP0519. MDI's literature also directly contradicts MDI's assertion that the product is not operated while being held by the user:

1. Fill the bottle with water to between 300 ml and 1 L, then place the cap on the bottle and **hold the bottle, upside down if necessary**, so that the water touches the gold pin in the cap.

* * *

3. **Swirl or agitate the bottle during the cleaning cycle** to improve the disinfection process (upside down works slightly better). The water directly under the lamp is partially shaded from the cleansing light, so agitate the water somewhat assures a complete treatment.

AquaStar Plus User's Guide, Maiden Dec., Exhibit 3, p. HP0499 (emphasis supplied). MDI's arguments with respect to the "hand-held" term are untenable.

MDI next argues that the AquaStar products do not have a case with an outwardly extending ultraviolet light source. MDI's Response, p. 12. Even a casual inspection of the AquaStar product samples shows that this is not true. The fact that the AquaStar has some added plastic that extends from the cap along one side of the UV lamp to the free end of the lamp does not mean that cap is not a case with an outwardly extending UV light source. The fact that an accused product includes additional structure or features does not avoid infringement if it

otherwise satisfies the limitations of a patent claim. *JVW Enterprises, Inc. v. Interact Accessories, Inc.*, 424 F.3d 1324, 1333-4 (Fed. Cir. 2005).

MDI next argues, rather remarkably, that the AquaStar products do “not need any water to operate.” MDI’s Response, p. 12. Yet, the very function of the products is to sterilize or disinfect water, and in order to perform that function, the product’s UV lamp must be immersed in the water to be sterilized. As noted above, MDI’s literature emphasizes the important of assuring that the UV radiation from the lamp makes contact with all of the water in the container. It is ludicrous for MDI to argue that the lamp in its AquaStar products need not be submerged in water to operate in its intended fashion for its intended purpose.

Finally, MDI argues that the on-off switch in the AquaStar products is both on the outside of their case and on the inside of their case, and thus is not a switch “contained in the case.” The fact that there is a button on the outside the case, accessible by a user, is irrelevant. That button is mechanically coupled to the electrical contacts of an on-off switch included in the electrical circuitry contained in the case. Maiden Dec., ¶ 8. The same is obviously true for the on-off switch 28 in the purifier 10 of the ‘424 patent. There are, in addition to the electrical contacts of the on-off switch, other switches in the circuitry of the AquaStar products, contained in the case, that function to connect and disconnect the AquaStar power source and lamp. *Id.* MDI’s patent application (particularly Fig. 8) confirms this. Gannon Dec., Exhibit G.

MDI has not denied the existence of these switches inside the case of its accused products. Its AquaStar products literally satisfy this language of claim 7 as well.

III. CONCLUSION

For the reasons set forth in HPI's Memo, and those set forth above, HPI's cross-motion for partial summary judgment of claim 7 should be granted.

Hydro-Photon, Inc., Inc.
By its attorneys,

Dated: 12/23/05



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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 23rd day of December, 2005, a copy of the foregoing document is being served by First Class mail upon the following counsel for the defendant:

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